

Warm Up!

- 1.) Write in agenda book
- 2.) Write the fraction $\frac{3}{5}$ as a percent and decimal.

$$\frac{3}{5} = \frac{60}{100}$$

60%

0.60

When done with Pre-Assessment ...

- 1.) Keep it on your desk. When everyone is finished, you will grade your own.
- 2.) While waiting, you may read or draw on the back.

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Jan 3-9:43 AM

To do:

1. Record score on tracker
2. Glue tracker into your notebook
3. Turn pre test in to the tray
4. Open notebook to new page

Lesson 9.1: Exponents

Learning Target: I can use exponents to represent numbers.

Dec 10-10:40 AM

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A **Power** is a number that is formed by repeated **multiplication** of the same factor. We can use an **exponent** and a **base** to write a power.

The base is the number that is multiplied and the exponent tells you how many times the base appears in the expression.

$7^3 = 7 \cdot 7 \cdot 7 = 343$ 8^4 4^8

Power	How to read the power
6^2	6 squared, 6 to the power of 2, 6 raised to the 2 nd power
7^3	7 cubed, 7 to the power of 3, 7 raised to the 3 rd power
9^4	9 to the power of 4, 9 raised to 4 th power

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Example 1: Use an exponent to write each expression.

a.) $3 \times 3 \times 3 \times 3 \times 3$ 3^5

b.) $\frac{4}{5} \times \frac{4}{5} \times \frac{4}{5} \times \frac{4}{5}$ $(\frac{4}{5})^4$ $\frac{4 \cdot 4 \cdot 4 \cdot 4}{5}$

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Example 2: Find the value of each power

Note: Any nonzero number raised to the power of 0 is 1.

c.) 10^4 $10 \cdot 10 \cdot 10 \cdot 10 = 10,000$

d.) 0.4^3 $0.4 \times 0.4 \times 0.4 = 0.064$

e.) $(\frac{2}{5})^3$ $\frac{2}{5} \times \frac{2}{5} \times \frac{2}{5} = \frac{8}{125}$

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H.O.T. FOCUS ON HIGHER ORDER THINKING

Every integer can be written as the sum of square numbers.
 For Example: $20 = 4^2 + 2^2$ $24 = 4^2 + 2^2 + 2^2$

Write the integers 8, 13 and 18 as the sum of 2 squares.

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